ENVIRONMENTAL CHEMISTS

Date of Report: 09/14/98
Date Received: 09/10/98

Project: Metro Self Monitor, PO# M12165

Date Samples Extracted: 09/11/98 Date Extracts Analyzed: 09/14/98

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, ZINC USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

| Sample ID | Chro | omium (| Copper | <u>Nickel</u> | Zinc |
|--------------|------|---------|--------|---------------|--------|
| M12165 | 0 | 0.93 | 0.70 | 0.94 | < 0.05 |
| | | | | | |
| Method Blank | <0 | 0.05 | <0.05 | < 0.05 | < 0.05 |

ENVIRONMENTAL CHEMISTS

Date of Report: 09/14/98
Date Received: 09/10/98

Project: Metro Self Monitor, PO# M12165

QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 809044-01 (Duplicate)

| | | | | | Relative | |
|-------------|-----------------|------------|--------|----------|------------|------------|
| | | Reporting | Sample | Duplicat | e Percent | Acceptance |
| Analyte | Andrew Standard | Units | Result | Result | Difference | Criteria |
| Chromium | | mg/L (ppm) | 0.93 | 0.85 | 9 | 0-20 |
| Copper | | mg/L (ppm) | 0.70 | 0.69 | 1 | 0-20 |
| Nickel | | mg/L (ppm) | 0.94 | 0.88 | 7 | 0-20 |
| Zinc | | mg/L (ppm) | < 0.05 | < 0.05 | nm | 0-20 |

Laboratory Code: 809044-01 (Matrix Spike)

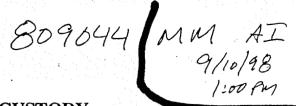
| | Reporting | Spike | Sample | % Recov | ery % Reco | very | Acceptance | , (1984) | |
|----------|------------|-------|--------|---------|------------|------|------------|-----------------|----|
| Analyte | Units | Level | Result | MS | MSI |) | Criteria | RPD | |
| Chromium | mg/L (ppm) | 5 | 0.93 | 88 | 87 | | 80-120 | 1 | 7, |
| Copper | mg/L (ppm) | 5 | 0.70 | 88 | 88 | | 80-120 | 0 | |
| Nickel | mg/L (ppm) | 10 | 0.94 | 89 | 89 | | 80-120 | 0 | |
| Zinc | mg/L (ppm) | 5 | < 0.05 | 94 | 93 | | 80-120 | 1 | |

Laboratory Code: Laboratory Control Sample

| | | Reporting | Spike | % Recover | ry % Recove | ery Acceptanc | e |
|-----|--------|------------|-------|-----------|-------------|---------------|-----|
| An | alyte | Units | Level | LCS | LCSD | Criteria | RPD |
| Ch | romium | mg/L (ppm) | 5 | 93 | 92 | 80-120 | 1 |
| Co | pper | mg/L (ppm) | 5 | 92 | 93 | 80-120 | 1 |
| Ni | ckel | mg/L (ppm) | 10 | 95 | 95 | 80-120 | 0 |
| Zir | ıc | mg/L (ppm) | 5 | 96 | 95 | 80-120 | 1 |

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282



SAMPLE CHAIN OF CUSTODY

| Send Report To: Alaskan Copper Works Contact GELSED Thompson | | | | | | | | |
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| Address 628 H | sudant 50 | | | | • | | | |
| City, State, Zip Sea | | 98134 | | | | | | |
| Phone # (2-6) 38 | 2-8379 | FAX #_(< | es) 38. | 2-8309 | Da | ite $9/10/58$ | | |
| SITE NO. PROJECT NAME PURCHASE ORDER # | | | | | | | # | |
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| SAMPLER'S (signature) | | | | | P | ROJECT LOCATIO | N | |
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FORMS/COC

06/09/97

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

September 14, 1998

DUPLICATE COPY

INVOICE #98ACU0914-1

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M12165: Results of testing requested by Gerry Thompson for material submitted on September 10, 1998.

FEDERAL TAX ID (b) (6)

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

September 14, 1998

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on September 10, 1998 from your Metro Self Monitor, PO# M12165 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Manuel Marti Project Manager

Enclosures ACU0914R.DOC